

REMARKS

Claims 27-41 are currently pending in this application. Claims 32-39 are currently withdrawn pursuant to a requirement for restriction. By this response to the Office Action mailed on April 23, 2009, claims 27 and 28 are amended. Support for the amendments is found in the specification, including the claims, as originally filed. No new matter has been introduced. Favorable reconsideration of the application in light of the foregoing amendments and following comments is respectfully solicited.

In section 3 of the Office Action, claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,067,309 (Onomura) in view of U.S. Patent App. Pub. No. 2005/0195876 (Sato). In section 5 of the Office Action, claims 28-31, 40, and 41 were rejected under 35 U.S.C. § 103(a) over Onomura in view of Sato and U.S. Patent App. Pub. No. 2004/0245534 (Yamada). Applicants respectfully traverse.

Independent claims 27 and 28 each recite, *inter alia*,

the first electrode is made thinner than the second electrode, and is so formed as to extend to both stripe-direction ends of the ridge while covering at least an entire area of the top face thereof, and

wherein the second electrode is formed **away from** both stripe-direction ends of the ridge and **away from** both width-direction ends, the width-direction intersecting the stripe-direction of the ridge.

Nonlimiting embodiments of the above limitations are illustrated in FIGS. 2 and 4 of this application. As illustrated in FIGS. 2 and 4, the first electrode is formed thinner than second electrode 10, and covers at least the entire area of the top face of the ridge 6, from end to end in the stripe direction. The second electrode 10 is formed away from both ends of the ridge 6 in the stripe direction, and away from both ends in the width direction (Y direction), which crosses the stripe direction (X direction). With this structure, the second electrode 10 does not overlap the cleaved facets A1, A2, B1, and B2; thus, cleaving does not cause the second electrode to come

off the first electrode. In addition, the first electrode 9 does not overlap cleaved facets B1 and B2; thus, cleaving performed to produce cleaved facets B1 and B2 does not cause first electrode 9 to come off. Combined with first electrode 9 being thicker than second electrode 10, this prevents first electrode 9 from coming off. Also, since the first electrode 9 is formed so as to cover at least the entire area of the top face of the ridge 6 and from end to end in the stripe direction, sufficient current can be supplied to both stripe-direction ends of the ridge 6.

Onomura does not disclose or suggest that “the second electrode is formed away from both stripe-direction ends of the ridge and away from both width-direction ends,” as recited in the claims. As noted in the previous response, Onomura only discloses the device in cross-section; accordingly, there is no factual basis upon which the Office Action can conclude that electrode pad 11 “is formed away from both stripe-direction ends of” the mesa structure shown in Onomura, FIG. 4. Additionally, Onomura, FIG. 4 shows that electrode pad 11 extends entirely up to both width-direction ends; thus, it does not disclose or suggest “the second electrode is formed . . . away from both width-direction ends,” as recited in the claims. Finally, page 3, lines 10-12 of the Office Action acknowledges that “Onomura [does] not explicitly disclose wherein the first electrode is formed to extend to both strip-direction ends of the ridge.”

Sato does not bridge the above gaps between Onomura and the claims. In contrast to the claimed subject matter, in Sato the electrode is not formed up to both ends in the stripe direction of the ridge, nor is it formed up to both ends in the width direction. *See* FIG. 1. Yamada, considered individually or in combination with the other references, also does not bridge these gaps. Accordingly, in view of the cited art, one of skill in the art would not have modified Onomura to produce the claimed subject matter. Thus, claims 27 and 28 are nonobvious in view

of the cited art, and Applicants respectfully request withdrawal of the rejections of claims 27 and 28, and claims 29-31, 40, and 41 which depend thereon.

Claims 29 and 30 each recite, *inter alia*, that “a width direction length of the first electrode is shorter than a width-direction length of the second electrode.” Nonlimiting embodiments of claims 29 and 30 are illustrated in FIGS. 2 and 4 of this application. As the first electrode does not overlap the cleaved facets B1 and B2, cleaving performed to produce cleaved facets B1 and B2 does not cause the first electrode to come off. Further, since the width direction dimension of the first electrode 9 is smaller than that of second electrode 10, an advantage is obtained in terms of costs.

Claim 31 recites, *inter alia*, that “the first electrode is formed away from the groove.” A nonlimiting embodiment of claim 31 is illustrated in FIG. 4. By forming the first electrode away from the separation groove, the likelihood of unwanted electrical conduction between the two laser portions is reduced. In contrast, in Yamada electrode 12 meets the edge of separation groove 11, as shown in FIG. 2, and unwanted electrical conduction is likely between the laser portions. Although page 4, lines 17-18 of the Office Action suggests that the Examiner believes Yamada, paragraph [0043] discloses that “the first electrode is formed away from the groove,” the only statement that appears to even relate to electrodes 12 and 14 (which page 3 of the Office Action dated October 15, 2008 equates to the recited first and second electrodes) is that “[t]he other processes are performed in the same manner as in Example 1.” This statement does not disclose that “the first electrode is formed away from the groove,” as recited in claim 31. For at least these reasons Yamada does not disclose or suggest at least the above limitations of claim 31, and claim 31 is nonobvious in view of the cited art. Thus, in addition to the reasons

discussed above with respect to claim 28, upon which claim 31 depends, Applicants request withdrawal of the rejection of claim 31.

In view of the above remarks, Applicants respectfully submit that the application is in condition for allowance, and respectfully requests the Examiner's favorable reconsideration as to allowance. The Examiner is invited to contact the Applicants' representative listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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